

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS

1. (Currently Amended) A caption overlaying method used on an interactive video equipment, in which information of a caption to be generated set by a user is received by a control layer, comprising:

A. providing a caption generating module, receiving the information of the caption from the control layer, and generating a caption dot-matrix image with a transparent background according to the received information;

B. providing a caption overlaying module, when selected to display a mingled image at a remote side, at a local side overlaying the caption dot-matrix image on a digital service image to obtain the mingled image, encoding the mingled image; and

C. transmitting the encoded mingled image from the local side to the remote side to display captions on terminals at the remote side independently of caption processing.

2. (Previously Presented) The caption overlaying method according to Claim 1, wherein the information of the caption to be generated comprises: internal codes of all characters of the caption, a position information of the caption, a size information of the caption and a color information of the caption.

3. (Previously Presented) The caption overlaying method according to Claim 1, wherein the information of the caption to be generated comprises internal codes of all

characters of the caption to be generated, and the internal code is generated with the steps of:

using a software for generating a character database; selecting a vector font; according to a required character size, displaying a character one by one on a PC screen with a software, and then recording the display result as a dot-matrix image, and storing the dot-matrix image in a specific format as a character database file.

4. (Currently Amended) The caption overlaying method according to Claim 1, wherein the information of the caption to be generated comprises color information of the caption;

the caption generating module performs setting or changing the color of the characters according to the color information of the caption and keeping the background of the caption dot-matrix image transparent.

5. (Previously Presented) The caption overlaying method according to Claim 1, in Step A comprising, after the caption generating module has received the caption information from the control layer, reading dot-matrix images of all the characters, and combining the dot-matrix images with the transparent background according to a display position and content of the caption selected at the control layer.

6. (Currently Amended) The caption overlaying method according to Claim 1, wherein overlaying the caption dot-matrix image on the digital service image comprises:

overlaying the caption dot-matrix image on the digital service image which is a pre-encoded image.

7. (Currently Amended) An interactive video equipment that has a control layer to receive information of a caption to be generated set by a user, comprises:

a caption generating module; and

a caption overlaying module;

wherein the caption generating module receives the information of the caption from the control layer, and generates a caption dot-matrix image with a transparent background according to the received information;

wherein the caption overlaying module, when selected to display a mingled image at a remote side, at a local side overlays the caption dot-matrix image on a digital service image to obtain the mingled image, encodes the mingled image, and transmits an~~the~~ encoded mingled image from the local side to the remote side to display captions on terminals at the remote side independently of caption processing.

8. (Previously Presented) The interactive video equipment according to Claim 7, the caption generating module reads dot-matrix images of all the characters, and combines the dot-matrix images with the transparent background according to a display position and content of the caption selected at the control layer after having received the caption information from the control layer.

9. (Previously Presented) The interactive video equipment according to Claim 7, the caption overlaying module is in a CODEC (coder-decoder) unit and in front of an image CODEC module; the caption generating module is in the CODEC unit and connects with the caption overlaying module.

10. (Previously Presented) The interactive video equipment according to Claim 7, wherein

the caption overlaying module is in an encoder, and locates along a service channel which is in front of an image-encoding module;

the caption generating module is in the encoder and connects with the caption overlaying module.

11. (New) A video conference system comprising:

a first video conference terminal at a first site;

a second video conference terminal at a second site that is remote from the first site, the second video conference terminal including

a caption generating module; and

a caption overlaying module;

wherein the caption generating module receives information of the caption from a control layer, and generates a caption dot-matrix image with a transparent background according to the received information;

wherein the caption overlaying module overlays the caption dot-matrix image on a digital service image to obtain the mingled image, encodes the mingled image, and transmits the encoded mingled image to the first video conference terminal, wherein the first video conference terminal displays the mingled image having the caption image independently of caption processing,

wherein the second video conference terminal selectively decodes received caption image signals to generate a second caption image and decodes

received digital service image signals to generate a second digital service image, wherein the second terminal further overlays the second caption image on the second digital service image and displays the overlaid image.

12. (New) The video conference system according to Claim 11, wherein the caption generating module reads dot-matrix images of all characters, and combines the dot-matrix images with the transparent background according to a display position and content of the caption selected at the control layer after having received the caption information from the control layer.

13. (New) The video conference system according to Claim 12, wherein the caption overlaying module is in a CODEC (coder-decoder) unit and in front of an image CODEC module; the caption generating module is in the CODEC unit and connects with the caption overlaying module.

14. (New) The video conference system according to Claim 13, wherein
the caption overlaying module is in an encoder, and locates along a service channel which is in front of an image-encoding module;
the caption generating module is in the encoder and connects with the caption overlaying module.